

NCR-19-7485



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D3274-041BENT
Job Sheet 200935



Part No: D3274-041BENT

Job Qty: 6 pcs

10 JW

Part Name: Skidtube Assembly 206



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 9/19/19

Job Tracking No:

Due Date: 10/10/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV G SHEET 2 IPP REV:A 14.01.17 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Skidtubes - Bend - 1	6 pcs	10/10/19	10/10/19	0.12	1.33	Skidtubes - Bend		MLG
120	QC 5	6 pcs	10/10/19	10/10/19	0.00	0.00	QC 5 - 10		BB
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		
							QC 5 - 61		
							QC 5 - 81		
130	Packaging 3-1 - Stock - B4B	6 pcs	10/10/19	10/10/19	0.00	0.00	Packaging 3 - 1 - B4B		
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		
							Packaging 3 - 6 - B4B		
							Packaging 3 - 7 - B4B		
							Packaging 3 - 8 - B4B		
							Packaging 3 - 9 - B4B		
							Packaging 3 - 10 - B4B		
							Packaging 3 - 11 - B4B		



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CANADA
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Container No: S216847



Part: D3274-041BENT

Job No: 200935

Serial No/Batch: S216847

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 09/25/19

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				Packaging 3 - 12 - B4B		
				Packaging 3 - 13 - B4B		
				Packaging 3 - 14 - B4B		
				Packaging 3 - 15 - B4B		
				Packaging 3 - 16 - B4B		
				Packaging 3 - 17 - B4B		
				Packaging 3 - 18 - B4B		
				Packaging 3 - 19 - B4B		
				Packaging 3 - 20 - B4B		
				Packaging 3 - 21 - B4B		
				Packaging 3 - 22 - B4B		
				Packaging 3 - 23 - B4B		
				Packaging 3 - 24 - B4B		
				Packaging 3 - 25 - B4B		
				Packaging 3 - 26 - B4B	BE	
				Packaging 3 - 27 - B4B		
				Packaging 3 - 28 - B4B		
				Packaging 3 - 29 - B4B		
				Packaging 3 - 30 - B4B		
				Packaging 3 - 31 - B4B		
				Packaging 3 - 32 - B4B		
				Packaging 3 - 33 - B4B		
				Packaging 3 - 34 - B4B		
				Packaging 3 - 35 - B4B		
				Packaging 3 - 36 - B4B		
140	QC 21 - SA	6 pcs	10/10/19	0.00 0.00	QC 21 - SA - 21	DAS
					QC 21 - SA - 70	21
					QC 21 - SA - 53	8-29
Part Op 110 - (Skidtubes) ****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE**** 1- Bend FWD end of tube using bend Descriptions: prog D3274 FWD and folio 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274. 2- Test fit FWD cap. 120 - (QC5- Inspect part completeness to step on W/O) 130 - (Identify as per dwg & Stock Location: <u>L6002</u>) LOCATION : LG002 140 - (QC21- Final Inspection - Work Order Release)						
Job BOM						
Part / Item	Component Name	Quantity	Operation	Container		
D2600-1-190	Extrusion Round 3" 206	6 pcs (1 ea)	110-Skidtubes - Bend - 1	(3x) 3/08/69 (R) 5/13/22		
Job Allocations						
Operation	Component Part	Required	Inventory	Allocated		
110-Skidtubes - Bend - 1	D2600-1-190	6	22	0		
Part Specifications						
Specifications could not be found.						

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Qty	Qty	Qty	Part Number	Description
-041	-043	-045		
X			D3274-041	SKIDTUBE ASSEMBLY
	X		D3274-043	SKIDTUBE ASSEMBLY
		X	D3274-045	SKIDTUBE ASSEMBLY (FOR PHI)
1	1	1	D2800-1-240	EXTRUSION
1	1	1	D2846	AFT CAP
12	12	12	D2849	CROSS BOLT SPACER
12	37	12	D3275-1	CROSS BOLT SPACER
1	1	1	D3282-041	FLOAT WEB
1	1	1	D3285-1	CAP
1	1	1	D3413-1	RING
1	1	1	D3415-041	NUT PLATE
9	9	1	D3537-1	WEARPAD
1	1	1	D3537-11	WEARPAD
1	1	1	D3537-3	WEARPAD
1	1	9	D3537-8	WEARPAD
2	2	2	D3672-1	WASHER
1	1	1	D4955-15	WEARSHOE
1	1	1	D4955-23	WEARSHOE
1	1	1	D4955-35	WEARSHOE
1	1	1	D4955-39	WEARSHOE
78	78	40	ALS7-1032-130	INSERT (OF AK34-1032-130, ALS4-1032-130, AEL6-1032-130)
80	80	42	AN5C4A	BOLT
1	1	1	AN4C9A	BOLT
1	1	1	NAB1149C0453R	WASHER (AN880C16)
80	80	42	NAB1149C0332R	WASHER (AN880C10L)
2	2	2	CDP284953-3	RIVET
2	2	2	CR3212-4-05	RIVET
1	1	1	MS27038C4-05	SCREW

GENERAL NOTES:

1. MATERIAL: N/A
2. FINISH:

ON -041/-043: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D3282-041 WEB PRIME (REF. 4.2.1.3.3) OUTSIDE ONLY AND PAINT WHITE PER DART QSI 005 4.2 BLACK ANTI-SKID PAINT AS INDICATED TO 0.5" ABOVE LOCATION RIDGE PER DART QSI 005 4.4

ON -045: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D3282-041 WEB PRIME (REF. 4.2.1.3.3) INSIDE AND OUTSIDE PER QSI 005 4.2.1 PAINT BLACK PER QSI 005 4.2.2 USING CA6215/P37036 CAMOPLAGE BLACK PER MIL-PRF-08285E TYPE I CLASS II. BLACK ANTI-SKID PAINT AS INDICATED TO 0.5" ABOVE LOCATION RIDGE PER DART QSI 005 4.4

3. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
4. UNITS: INCHES UNLESS OTHERWISE NOTED
5. BREAK SHARP EDGES 0.005 TO 0.010 MAX
6. IDENTIFICATION: N/A
7. WEIGHT: FOR -041/-043 = 37.5 LBS
FOR -045 = 33.4 LBS
8. WELDING TO BE DONE PER DART QSI 004.
9. ALL HOLES DRILLED ON CENTERLINES.
10. DAMAGE TOLERANCE ON FWD SENG:

THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020" DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.180" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.

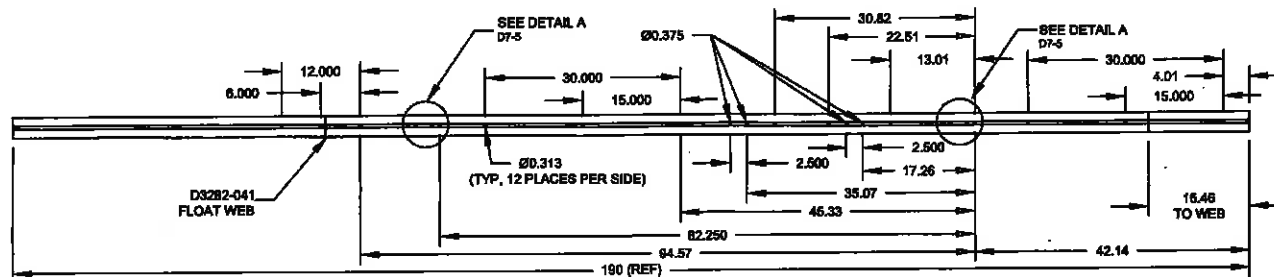
11. BOND D3282-041 FLOAT WEB INTO D3274-143 OUTER TUBE WITH MON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 018. ENSURE HOLES LINE UP.
12. DRILL 60,287 HOLES FOR ALS7-1032-130 INSERTS USING DTS274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX-241/291. ON -045, DO NOT DRILL HOLES OR INSTALL INSERTS FOR LONG WEARPLATES.
13. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS GREASE WITH WASH 'N WIPE DEGREASER.
14. ON -045, APPLY COAT OF ROCKGUARD TO SKIDTUBE WHERE WEARPADS ARE INSTALLED.

SHC
RF
ENC
UNCONT
ALERT

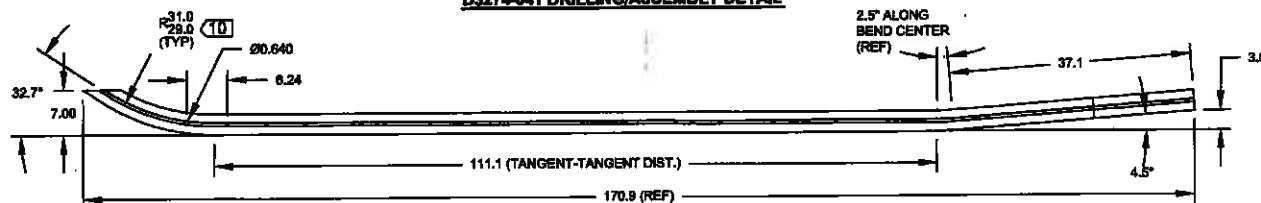
200935MLS
19-09-19

G	ADD -045 CONFIGURATION (FOR PHI) ZN A5-4, A5-6 REVISE NOTE 2, 7 & 12, ADD NOTE 14 (ZN A5-1)	DS	16.04.25
F	REVISE NOTE 2: ADD ANTI-SKID PAINT, REMOVE GASKETS PER IN-D206-842 REV Q	DB	14.04.15
E	REVISE NOTE 2: FINISH NOW PRIME/PAINT WAS POWDERCOAT, REF. PAR13-256	DW	13.05.17
D	NEW INSERTS, SS WEARSHOE + GASKET	CP	08.12.19
C	ADD -043; NEW INSERTS	CP	05.03.18
B	MOVE SADDLE HOLE: 42.14 WAS 42.78	CP	04.08.09
A	NEW ISSUE	CP	04.03.15
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE USA, INC	
DRAWN	RF	EUGENE, OR	
CHECKED	AK	DRAWING NO.	REV. G
MFG. APPR.	JLM	D3274	SHEET 1 OF 6
APPROVED	DS	TITLE	SCALE
DE APPR.		SKIDTUBE ASSEMBLY	NTS
DATE	16.04.25	COPYRIGHT © 2004 BY DART AEROSPACE USA, INC	

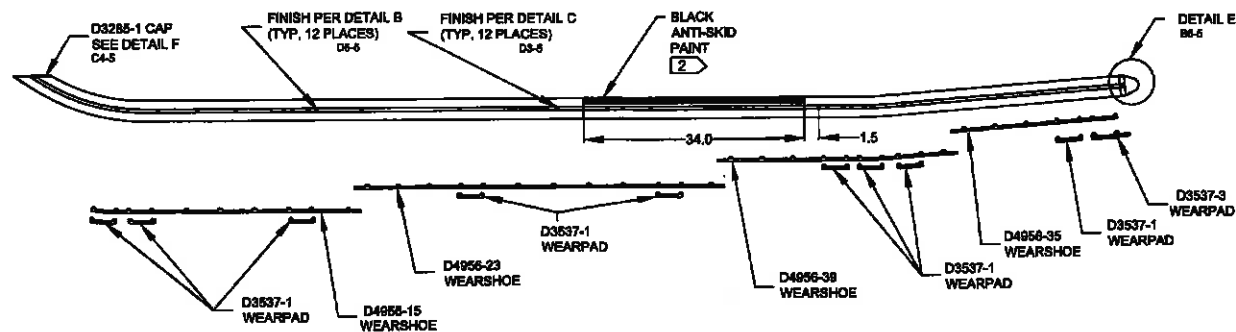
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2016-07-26
ECN 16-616



D3274-041 DRILLING/ASSEMBLY DETAIL



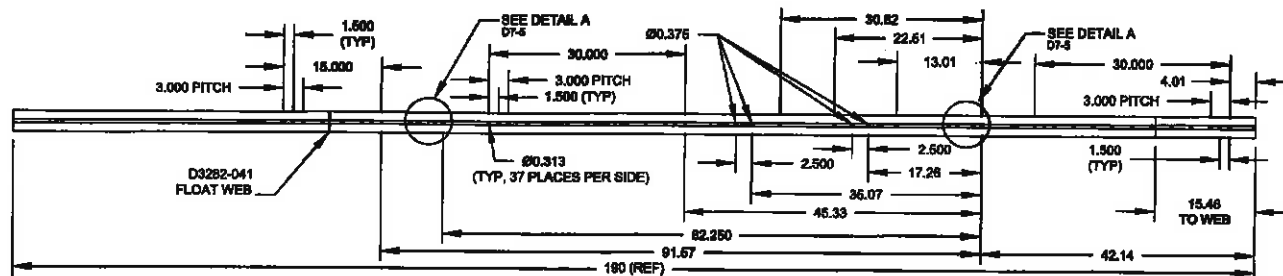
D3274-041 BEND/DRILLING DETAIL



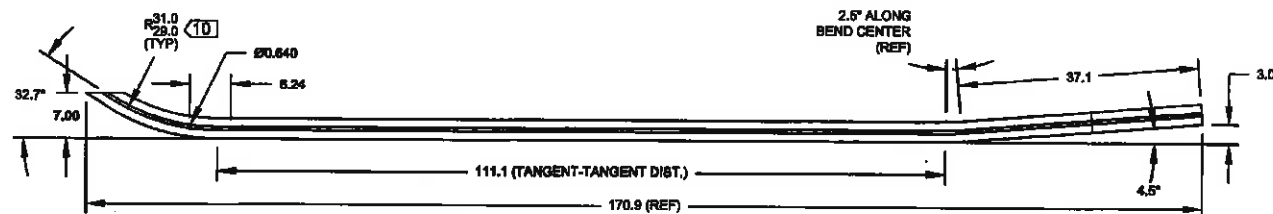
**D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)**

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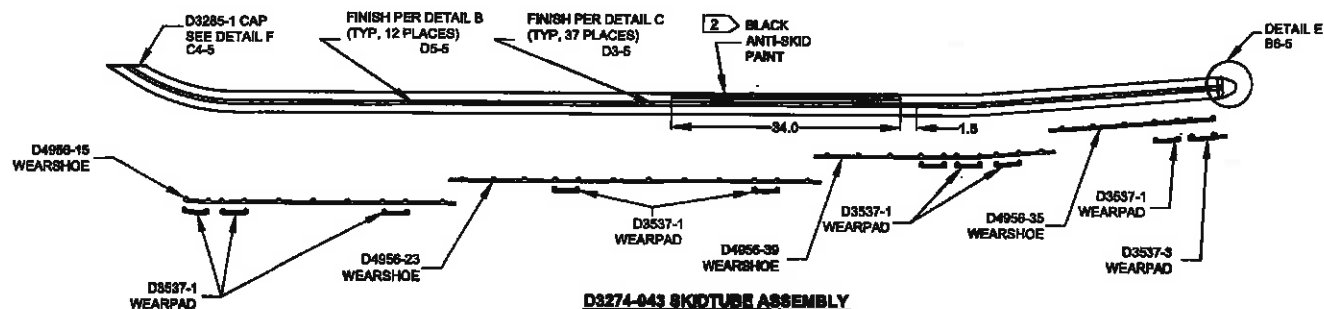
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D3274-043 DRILLING/ASSEMBLY DETAIL



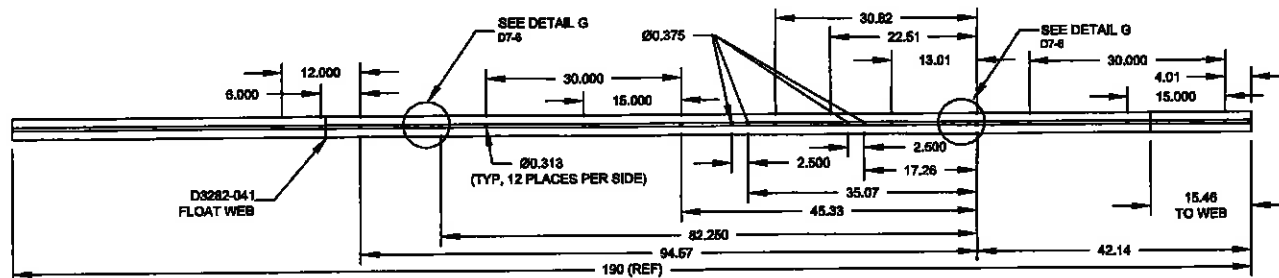
D3274-043 BEND/DRILLING DETAIL



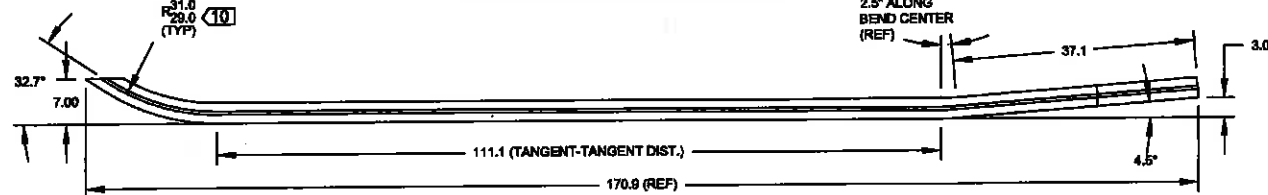
**D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)**

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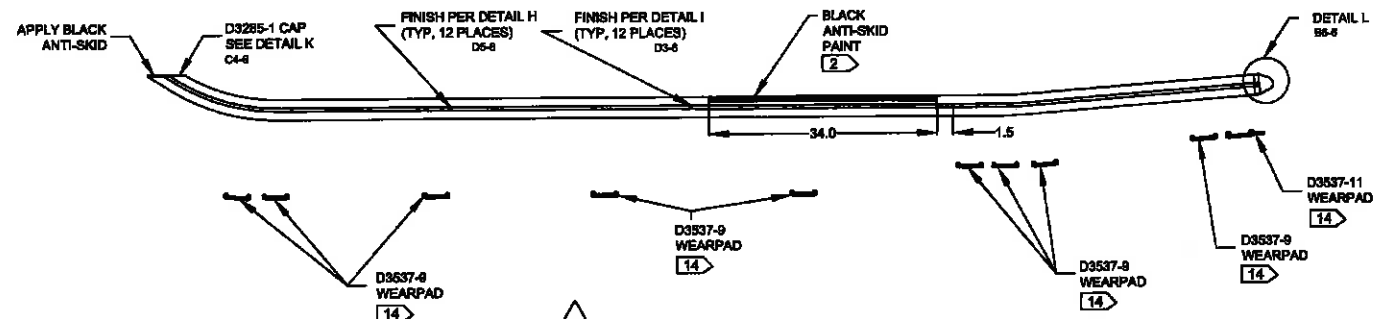
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D3274-045 DRILLING/ASSEMBLY DETAIL



D3274-045 BEND/DRILLING DETAIL



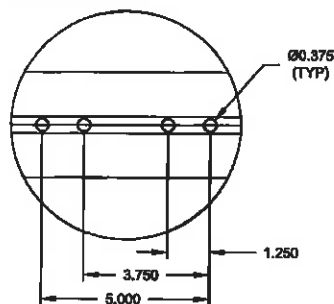
D3274-045 SKIDTUBE ASSEMBLY
(SEE DETAIL J FOR WEARSHOE INSTALLATION)

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DETAIL A: DRILL DETAIL

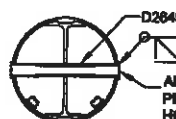
D8-2, D3-2, D8-3, D3-3



DETAIL B

D8-2, B2-3

FOR 0.375 HOLES ONLY



- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2849 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

DETAIL C

B8-2, B4-3

FOR 0.313 HOLES ONLY



CHAMFER 0.030x45°
(TYP)

DETAIL D

A4-2, A4-3

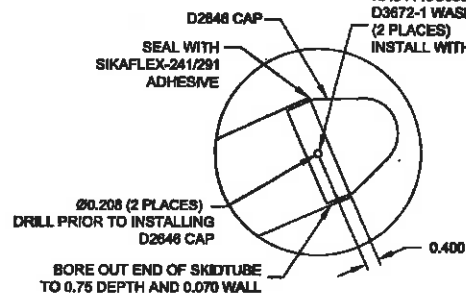


- AL57-1032-130 INSERT (1)
AN3C4A BOLT (1)
NAS1148C0332R WASHER (1)
(78 PLACES)

WEARSHOE/WEARPAD (REF)

DETAIL E

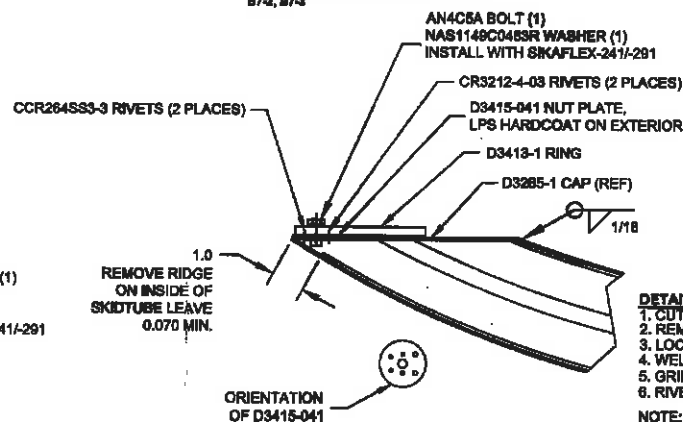
B2-2, B2-3



- AN3C4A BOLT (1)
NAS1148C0332R WASHER (1)
D3872-1 WASHER (1)
(2 PLACES)
INSTALL WITH SIKAFLEX-241/291

DETAIL F: END FINISHING DETAIL

B7-2, B7-3



DETAIL F NOTES

1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

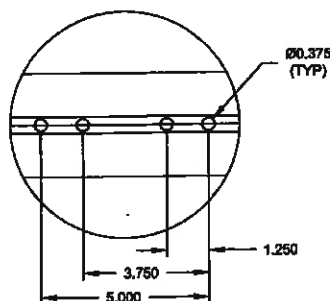
-041/-043 DETAILS

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DE APPR.		SKIDTUBE ASSEMBLY	NTS
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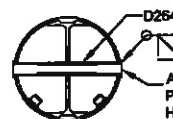
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DETAIL G: DRILL DETAIL
D6-4, D3-4



DETAIL H
B6-4

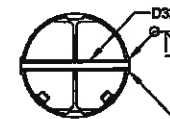
FOR Ø0.375 HOLES ONLY



AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
2. INSERT D2648 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO Ø0.313x0.75 DEEP

DETAIL I
B5-4

FOR Ø0.313 HOLES ONLY



CHAMFER 0.030x45°
(TYP)

DETAIL J
A4-4



AL57-1032-130 INSERT (1)
AN3C4A BOLT (1)
NAS1149C0332R WASHER (1)
(40 PLACES)
WEARPAD (REF)

DETAIL K: END FINISHING DETAIL
B7-4

CCR284SS3-3 RIVETS (2 PLACES)

1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041

MS27039C4-06 SCREW (1)
NAS1149CD463R WASHER (1)
INSTALL WITH SIKAFLEX-241/-291
CR3212-4-03 RIVETS (2 PLACES)
D3415-041 NUT PLATE,
LPS HARDCOAT ON EXTERIOR

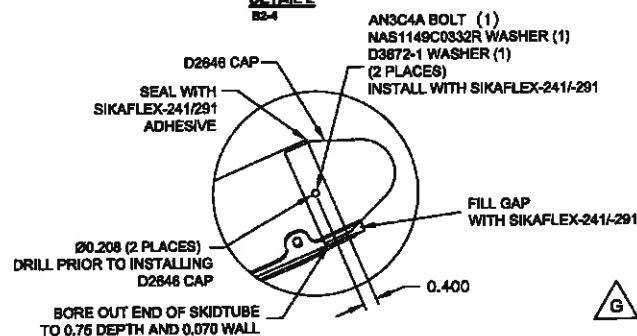
D3285-1 CAP (REF)

1/16

DETAIL K NOTES

1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART Q31 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

DETAIL L
B2-4



-045 DETAILS

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2016-07-26

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Entered: JR Date: Oct 23/19



NCR No. 19-7485 **WORK ORDER NON-CONFORMANCE / ROUTE UPDATE**

Route update only ☐

Job: <u>200935</u>		DISPOSITION		DEPARTMENT/PROCESS			
Part No. <u>13274-041BENT</u>		Rework ☐	Skid-tube ☒	Cross tube ☐	Eng. (Non-AW) ☐	Engineering ☐	
		Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Water Jet ☐	
		Use-as-is ☒	Large Fab ☐	Finishing ☐	Rec/Store/Packaging ☐	Supplier Quality ☐	
Date: <u>10/1/26</u>	Sequence #:	QTY Affected: <u>2</u> <u>10</u>			MRB (QSI042) <u>INS</u> <u>12</u> <u>4/14/26</u>		
Description Work Order Deviation			Disposition			Completed By <u>JR</u> <u>4/14/26</u>	
<u>2 SKIDTUBES CUT AT</u> <u>6.9" HEIGHT.</u>			<u>Acceptable. Cosmetic only.</u>			Lead hand / Supervisor <u>JW</u> <u>10-09-26</u>	
						QC / QA Coordinator <u>DAS</u> <u>68</u> <u>9-89</u> <u>SEP 26 2019</u>	
Root Cause		FAULT CATEGORY					
Operator ☒	Pressure/Forced ☐	Contamination ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Manufacturing Process ☐	Bending ☐	Misaligned/off center ☐	Folio/Program ☐	Outside Tolerance ☐			
Equip/Tooling ☐	Crushing ☐	BOM/Route ☐	Grain Direction ☐	Drawing ☐			
Handling/Preservation ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Finish ☐			
Material ☐	Crimp/Kink/Ripple/Wave/Twist ☐	Incomplete/Unclear Instructions ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Product Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Out of Sequence ☐	Misread ☒			
Process Improvement ☐	Mislabeled ☐	Fit/Function ☐	Off-set/Set-up ☐				
Human Factors ☐	Other/Details:						